UNITED STATES PATENT OFFICE.

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STREET-CAR TRUCK.

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(No model)

To all whom it may concern:

Be it known that we, RAYMOND H. HORN BROOK and WILLIAM H. WOODCOCK, both subjects of the King of Great Britain and Ireland, and residents of Canton, Ohio, have invented certain Improvements in Street-Car Trucks, of which the following is a specification.

One object of our invention is to so construct a truck for street-cars that the same can be cheaply manufactured from ordinary plates or shapes, but will be strong and rigidly braced, a further object being to so mount the car-body upon the truck that while the desired elastic support for said body will be provided the ends of the same will be so upheld as to prevent teetering. These objects we attain in the manner hereinafter set forth, reference being had to the accompanying drawings, in which—

Figure 1 is a plan view of a street-car truck constructed in accordance with our invention. Fig. 2 is a side view of the same. Fig. 3 is an enlarged transverse section on the line "a, a", Fig. 2; and Fig. 4 is an enlarged transverse section on the line "b, b", Fig. 2.

The truck has opposite side sills 1, each of which is composed of a channel-bar with the edge flanges turned downward, the longitudinal central portion of each of these sills being stiffened by a depending angle-bar 2 and the sills being connected by transverse angle-bars 3 at the ends and by intermediate angle-bars 4, the central portions of which are preferably depressed below the plane of the sills, as shown in Fig. 2, so as to afford space for the brake mechanism or other attachments with which the under side of the body of the car is usually provided.

The pedestals for the guidance of the boxes 5, which receive the journals of the axles 6, are composed of the opposite vertical legs of a yoke 7, consisting of a plate bent into yoke form and having longitudinally-projecting flanges 8 at the base, the axle-box springs 10 being interposed between the tops of these yokes and the tops of the journal-boxes 5, as shown in Fig. 2, and the tops of the yokes being riveted or otherwise secured to the webs of the channel-bars constituting the side sills of the truck.

Each of the journal-box pedestals is stiffened and strengthened by an angle-bar 11, secured thereto and also secured at its upper end to the side sill 1, the lower portion of this angle-bar being bent so as to form a foot 12, which is bolted, riveted, or otherwise secured to the flanges 9 of the yoke 7, a diagonal brace 13 extending upwardly from this foot to the side sill 1, to which it is properly secured.

The vertical brace 11, foot 12, and diagonal brace 13 can all be conveniently formed from one piece of angle-iron by suitably cutting and bending the same.

The end portions of each side sill are depressed, and these depressed portions of the side sills carry the butt-ends of quarter-elliptic springs 14, which are suitably secured to said depressed portions of the sills and support the outer ends of the bars 15, to which the corners of the car-body are secured, the inner portions of these bars being provided with studs 16, passing through openings in the sills and having heads 17, bearing upon the upper ends of springs 19, which are supported upon plates 20, suspended by means of rods 21 from plates 22, supported upon the sills 1, as shown in Fig. 4. By these means the desired elastic support of the car-body is provided, the springs 14 running to the outer ends of the bars 15 and serving to prevent teetering of the car-body, which is likely to take place when such spring-supports for the corners of the same are not provided.

The depressing of the ends of the side sills allows the use of quarter-elliptic springs with sufficient play to answer the desired purpose.

Spreading of the lower portions of the journal-box pedestals and their braces is prevented by means of a longitudinal tie-rod 23, connecting the opposite flanges 9 of the yoke 7 and bridging the space between the pedestals, as shown in Fig. 2.

Having thus described our invention, we claim and desire to secure by Letters Patent—

1. A car-truck having opposite sills of channel-iron stiffened as to their longitudinal central portions by means of depending angle-bar braces secured to the under side of the sills, substantially as specified.

2. A car-truck having the side sills of channel-iron stiffened as to their longitudinal cen-
natural portions by means of depending angle-bars secured to the under sides of the sills, said side sills being connected by end angle-bars and intermediate angle-bars, substantially as specified.

3. A car-truck having the side sills composed of channel-bars with transverse bars connecting the same at the ends, and intermediate transverse angle-bars connecting the side sills and bent downward into the plane below the same, substantially as specified.

4. The combination of the side sill of the truck, with journal-box pedestals composed of a bar bent into yoke form and having projecting base-flanges, and pedestal-braces each comprising a vertical leg, a foot and a diagonal brace, the vertical leg and diagonal brace being connected at their upper ends to the sill and the foot being connected to the flanges of the yoke, substantially as specified.

5. The combination of the side sill of the truck, with journal-box pedestal-braces each comprising a vertical leg, a foot, and a diagonal brace, said vertical leg and diagonal brace being connected at their upper ends to the sill, and a bar or plate extending from the foot portion of one brace to that of the other and connected to each, substantially as specified.

6. The combination of the side sill of the truck, with journal-box pedestals composed of a bar bent into yoke form and having projecting base-flanges, pedestal-braces each comprising a vertical leg and foot, and a diagonal brace, the vertical leg and diagonal brace being connected at their upper ends to the sill and the foot being connected to the flanges of the yoke, and a bar or plate extending from one of said flanges to the other and connected to each, substantially as specified.

7. The combination of the side sills of a car-truck and the body-supporting bars at the corners of the truck, with elastic supports for said body-supporting bars each comprising a spring for supporting the bar, a plate supporting the spring, a plate resting on the sill and a pair of suspension-rod one on each side of the sill for connecting said plates, substantially as specified.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

RAYMOND H. HORN BROOK.
WILLIAM H. WOODCOCK.

Witnesses:
M. B. SHEEHAN,
H. F. AKE.